

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
9 September 2005 (09.09.2005)

PCT

(10) International Publication Number
WO 2005/081632 A2

(51) International Patent Classification: Not classified

(21) International Application Number: PCT/IL2005/000230

(22) International Filing Date: 24 February 2005 (24.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/547,436 26 February 2004 (26.02.2004) US

(71) Applicants (for all designated States except US): STATE OF ISRAEL, MINISTRY OF AGRICULTURE, AGRICULTURAL RESEARCH ORGANIZATION [IL/IL]; Volcani Center, P.O. Box 6, IL-50250 Bet Dagan (IL). THE SCRIPPS RESEARCH INSTITUTE [US/US]; 10550 North Torrey Pines Road, La Jolla, CA 92037 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CARMI, Nir [IL/IL]; 10 Habroshim Street, IL-52960 Ramat Efal (IL). EYAL, Yoram [IL/IL]; 129 Mesilat Zion, IL-99770 Doar Na Shimshon (IL). GIDONI, David [IL/IL]; 5 Hanasi Shazar Street, IL-76804 Mazkeret Batya (IL). SCHULTZ, Peter, G. [US/US]; 1650 La Jolla Rancho Road, La Jolla, CA 92037 (US). SANTORO, Stephen, W. [US/US]; 1697 Cambridge St. #15, Cambridge, MA 02138 (US).

(74) Agent: WEBB, Cynthia; Webb & Associates, P.O. Box 2189, IL-76121 Rehovot (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

(48) Date of publication of this corrected version:
3 November 2005

(15) Information about Correction:
see PCT Gazette No. 44/2005 of 3 November 2005, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/081632 A2

(54) Title: ENZYMES, CELLS AND METHODS FOR SITE SPECIFIC RECOMBINATION AT ASYMMETRIC SITES

(57) Abstract: The present invention relates to enzymes, compositions and methods for catalyzing asymmetric recombination of non-palindromic recombination sites in a cell free system, in isolated cells or in living organisms. The enzymes and methods of the invention are suitable for mediating specific recombinations between DNA sequences comprising specific recombination sites without being limited to strict palindromic symmetry within each recombination site.